

Frisman, E. V., Martsinovskii, A. M., and
Domnichcheva, N. A.
OPTICAL ANISOTROPY OF MACROMOLECULES OF
POLYSTYRENE DERIVATIVES. [1961] [9]p. 22 refs.
Order from OTS or SLA \$1.10 62-13834

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, p. 1148-1153.

DESCRIPTORS: *Styrenes, *Polymers, *Optics,
Polarization, Molecular rotation.

The segmental anisotropy of polystyrene derivatives
was measured by the method of flow birefringence.
Analysis of the experimental data indicates that the
nature of rotation of the side groups may be considered
to be the same in molecules of poly-p-chlorostyrene,
poly-2,5-dimethylstyrene, and polystyrene. This as-
sumption does not satisfy the experimental findings for
poly-2,5-dichlorostyrene. In this case the extent to
(Physics--Molecular, T.F. v. 8, no. 8) (over)

62-13834

- I. Frisman, E. V.
- II. Martsinovskii, A. M.
- III. Domnichcheva, N. A.
- IV. Translations, New York

Office of Technical Services

<p>Volchek, B. Z. and Roberman, Zh. N. DETERMINATION OF "MICROTACTICITY" IN POLYPROPYLENE CHAINS BY THE METHOD OF POLARISED, INFRARED SPECTRA. [1961] 6p. 16 refs. Order from OTS or SLA \$1.10 61-14967</p> <p>Trans. of Vysokomolekulyarnyye Soyedineniya (USSR) 1960 [v. 2] no. 8, p. 1157-1161.</p> <p>DESCRIPTORS: *Propenes, *Polymers, Mechanical properties, Infrared spectroscopy, Dichroism.</p> <p>(Chemistry--Organic, TT, v. 6, no. 1)</p>	<p>61-14967 L Volchek, B. Z. IL Roberman, Zh. N. 61-14967</p> <p>161771</p> <p>Office of Technical Services</p>
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Korshak, V. V., Vinogradova, S. V., and
Lebedeva, A. S.
HETERO-CHAIN POLYESTERS. PT. 28. A STUDY
OF SOME RELATIONSHIPS GOVERNING INTER-
FACIAL POLYESTERIFICATION. [1960] 5p.
Order from ATS \$7.75 ATS-86M45R

Trans. of Vysokomolekulyarnyye Soyedineniya (USSR)
1960, v. 2, no. 8, p. 1162-1166.

(Chemistry--Organic, TT, v. 5, no. 2)

61-12091

1. Esters--Polymerization
2. Title: Polyesterification
- I . Korshak, V. V.
- II . Vinogradova, S. V.
- III . Lebedeva, A. S.
- IV . Title: Study...
- V . ATS-86M45R
- VI . Associated Technical
Services, Inc.,
East Orange, N. J.

ATS-RJ-2678

141, 160

Office of Technical Services

Shantarovich, P. S. and Shlyapnikova, I. A.
POLYMERIZATION OF CYCLOHEXADIENE. [1961]
[7]p, 3 refs.
Order from OTS or SLA \$1.10

62-13767

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, no. 8, p. 1171-1175.

DESCRIPTORS: *Cyclohexadienes, Polymerization,
Heat of reaction, Peroxides, Reaction Kinetics.

The polymerization of cyclohexadiene is described for
the case when the reaction is initiated by heat and by
peroxide. It was established that in thermal initiation
the original centers of polymerization are produced
as the result of a bimolecular reaction involving the
formation of a diradical. The reaction has an ex-
tremely low frequency factor. The diradical center
vanishes during the autosaturation and cyclization
reaction (provided there are no steric hindrances
(Chemistry--Organic, TT, v. 7, no. 11) (over)

62-13767

I. Shantarovich, P. S.
II. Shlyapnikova, I. A.
III. Translations, New York

Office of Technical Services

<p>Tsvetkov, V. N. and Boytsova, N. N. STEREOREGULARITY AND OPTICAL ANISOTROPY IN POLY(METHYL METHACRYLATE) MOLECULES. [1960] 12p. Order from ATS \$17.70</p> <p>Trans. of <u>Vysokomolekulyarnyye Soyedineniya (USSR)</u> 1960, v. 2, no. 8, p. 1176-1187.</p> <p>751580</p> <p>(Chemistry--Organic, TT, v. 5, no. 8)</p>	<p>61-12762</p> <p>1. Methyl acrylate-- Molecular structure 2. Methyl acrylate-- Optical properties 3. Stereochemistry I. Tsvetkov, V. N. II. Boytsova, N. N. III. ATS-1BN48R IV. Associated Technical Services, Inc., East Orange, N. J. ATS/RJ-3617</p> <p>Office of Technical Services</p>
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CEA-tr-R-1388 Unc1.

INTERACTION DU SOUFRE ET DU CAOUTCHOUC NATUREL
SOUS L'ACTION DE RAYONNEMENTS IONISANTS.

(Interaction of Sulfur and Natural Rubber
Under the Action of Ionizing Radiations).

Z. N. Tarasova, M. Ya. (Ia.) Kaplunov, V. T.
Kozlov, N. A. Klauzen, and B. A. Dogadkin.
Translated into French from Vysokomolekulyarnye
Sedineniya, 2: 1201-6(1960). 18p.

Chemistry; Radiation Effects;
Translations MC-40

C-40 NP NSA Dep.(mc); \$1.60(fs), \$0.80(mf)

Zabolotskaya, E. V., Gantmakher, A. R., and
Medvedev, S. S.
POLYMERIZATION OF STYRENE BY THE ACTION
OF COMPLEX CATALYSTS, [1961] [12]p. 15 refs.
Order from OTS or SLA \$1.60 62-13833

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2 [no. 8] p. 1213-1220.

DESCRIPTORS: *Styrenes, *Polymerization, Catalysts,
Titanium compounds, Chlorides, Aluminum com-
pounds, Alkyl radicals, Benzenes, Polymers.

A study was made of the kinetics of styrene polymer-
ization by the action of titanium trichloride and an alkyl
aluminum in benzene. The rate of polymerization is
proportional to the concentrations of the monomer and the
titanium trichloride. The activation energy of the
styrene polymerization process is 11 Kcal/mol. The
(Chemistry-Organic, TT, v. 7, no. 11) (over)

62-13833

- I. Zabolotskaya, E. V.
- II. Gantmakher, A. R.
- III. Medvedev, S. S.
- IV. Translations, New York

Office of Technical Services

The Role of Oxygen in the Polymerization of Vinyl-
idene Chloride, by G. A. Razuvayev, K. S. Minsker,
15 pp.
RUSSIAN, per, Vysok Soedineniya, Vol II, No 8,
1960, pp 1239-1245.
K-II 10610 a

Sci-Chem
April 64

Fedotova, O. Ya. and Mao, Bin-tsyan.
SYNTHESIS AND STUDY OF POLYAMIDOUREAS.
[1960] 7p.
Order from ATS \$10.15

ATS-87M45R

Trans. of Vysokomolekulyarnyye Soyedineniya (USSR)
1960, v. 2, no. 8, p. 1255-1260.

61-12078

1. Urea derivatives -- Synthesis
2. Amide polymers -- Synthesis
- I. Fedotova, O. Ya.
- II. MAO, B.
- III. ATS-87M45R
- IV. Associated Technical Services, Inc.
East Orange, N. J.

ATS-RJ-2679

141, 150

(Chemistry--Organic, TT, v. 5, no. 2)

Office of Technical Services

Kolesnikov, G. S., Suprun, A. P. and others.
CARBOCHAIN POLYMERS AND COPOLYMERS. XXVI.
POLYMERIZATION AND COPOLYMERIZATION OF
1,1,2-TRICHLOROBUTADIENE-1,3. [1961] 4p.
(3 figs. omitted) 1 ref.

Order from OTS or SLA \$1.10

61-20641

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2 [no. 8] p. 1266-1269.

DESCRIPTORS: *Chloroprenes, *Polymers, Poly-
merization, Copolymerization.

Polymers of 1,1,2-trichlorobutadiene-1,3 were ob-
tained and the dependence of thermomechanical prop-
erties on molecular weight was determined. Copoly-
mers of 1,1,2-trichlorobutadiene-1,3 with styrene and
methylmethacrylate were studied and the dependence of
(Chemistry--Organic, T.T., v. 7, no. 7) (over)

61-20641

I. Kolesnikov, G. S.
II. Suprun, A. P.
III. Title: Polymerization...

Office of Technical Services

Kargin, V. A., Bakeyev, N. F. and others.
ELECTRON-MICROSCOPIC STUDY OF CRYSTAL
STRUCTURES OF POLYSTYRENE AND POLYPROPYLENE. [1961] 4p.
Order from ATS \$5.25

ATS-17N48R

Trans. of Vysokomolekulyarnyye Soyedineniya (USSR)
19(0, v. 2, no. 8, p. 1279-1282.

61-22016

1. Styrene polymers--
Crystal structure
 2. Propene polymers--
Crystal structure
 3. Electron microscopy--
Applications
- I. Kargin, V. A.
II. Bakeyev, N. F.
III. ATS-17N48R
IV. Associated Technical
Services, Inc., East
Orange, N. J.

ATS-PJ-3056

(Chemistry--Organic, TT, v. 5, no. 10)

Office of Technical Services

Mikhaylov, N. V., Gorbacheva, V. O. and others.
INVESTIGATION OF THE STRUCTURE OF POLY-
AMIDES PREPARED BY INTERFACIAL POLYCONDEN-
SATION. [1960] 5p.
Order from ATS \$0.65

ATS-88M45R

Trans. of Vysokomolekularnyye Soyedineniya (USSR)
1960, v. 2, no. 8, p. 1283-1286.

61-12081

1. Amide polymers--
Molecular structure
2. Condensation reactions
- I. Mikhaylov, N. V.
- II. Gorbacheva, V. O.
- III. ATS-88M45R
- IV. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS - RI - 2671

Office of Technical Services

Spasskiy, S. S., Mat'kova, M. Ye., and Tokarev,
A. V.
COPOLYMERIZATION OF UNSATURATED ESTERS
WITH VINYL MONOMERS. VI. THERMOMECHANICAL
STUDY OF COPOLYMERS OF UNSATURATED
POLY ESTERS AND VINYL MONOMERS. [1961] 8p.
6 refs.
Order from LC or SLA m\$1.80, ph\$1.80 61-10985
Trans. of Vysokomolekulovannye Sovedineniya (USSR)
1960, v. 2 [no. 9] p. 1297-1300.

(Chemistry--Organic, TT, v. 5, no. 12)

61-10985

1. Copolymerization
2. Esters--Polymerization
3. Vinyl compounds--
 Polymerization
- I. Spasskiy, S. S.
- II. Mat'kova, M. Ye.
- III. Tokarev, A. V.
- IV. Title: Thermomechanical.

148753

Office of Technical Services

Dynamic Properties of Viscoelastic Materials During
Anharmonic Loading, by L. S. Priss.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
No 9, 1960, pp 1309-1319. 9662614

*ATIC MCL 820/1

Sci - Chem

2 Feb 61

<p>Spasiky, S. S. and Molchanova, T. V. COPOLYMERIZATION OF UNSATURATED POLY- ESTERS WITH VINYL MONOMERS. X. THERMO- MECHANICAL STUDY OF COPOLYMERS OF THREE- COMPONENT SYSTEMS. [1961] 8p. [3 graphs omitted] 12 refs. Order from OTS or SLA \$1.10 61-10984</p> <p>Trans. of <u>Vysokomolekulyarnyye Soyedineniya (USSR)</u> 1960, v. 2 [no. 9] p. 1320-1323.</p> <p>DESCRIPTORS: *Copolymerization, Polymers, *Esters, *Vinyl radicals, *Ethylenes, Glycols, Styrenes, Acetates, Methyl radicals, Fumaric acids, Adipic acids.</p> <p>(Chemistry--Organic, TT, v. 6, no. 2)</p>	<p>61-10984</p> <p>I. Spasiky, S. S. II. Molchanova, T. V. III. Title: Thermomechanical...</p> <p>105550</p> <p>Office of Technical Services</p>
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Investigation of the Strength Characteristics
of Polymers at High Deformation Rates, by
V. E. Guly'.

RUSSIAN, par, Vysokomolekulyarnye Svojstva,
vol II, no 11, 1960, pp 1616-1619.

MLL/RTS 1961

Sci - Chem

ATS
193, 836

Apr 62

Menchik, Z.

SOME COMMENTS ON THE CRYSTAL STRUCTURE
OF POLYACRYLONITRILE. [1961] [5]p. 6 refs.
Order from OTS or SLA \$1.10 62-13768

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2 [no. 11] p. 1635-1638.

DESCRIPTORS: *Acrylonitriles, Polymers, *Crystal
structure, Diffraction, Density.

According to the literature polyacrylonitrile is said to
have unit cells of hexagonal structure. It has been es-
tablished that a hexagonal unit cell must be rejected
for several reasons. Owing to the poorly defined dif-
fraction pattern (all the equatorial reflections are ex-
tremely weak, except for two, with blurred diffraction
spots on the other layer lines), the unit diffraction cell
cannot be described with certainty. The observed par-
(Chemistry--Organic, TT, v. 7, no. 10) (over)

62-13768

I. Menchik, Z.
II. Translations, New York

AT&T

Office of Technical Services

<p>Lanovskaya, L. M., Gantmakher, A. R., and Medvedev, S. S. POLYMERIZATION OF ETHYLENE WITH THE COMPLEX CATALYST $\text{K-TiCl}_3\text{-AlR}_3$ IN THE PRESENCE OF VARIOUS MONOMERS. II. SOME ASPECTS OF THE MECHANISM OF POLYMERIZATION IN THE PRESENCE OF COMPLEX CATALYSTS. [1961] [5]p. 14 refs. Order from OTS or SLA \$1.10</p> <p>Trans. of <u>Vysokomolekulovye Soedineniya (USSR)</u> 1960, v. 2 [no. 11] p. 1655-1658.</p> <p>DESCRIPTORS: *Ethylenes, *Polymerization, *Catalysts, Butadienes, Isoprenes, Styrenes, *Titanium compounds, Chlorides, *Aluminum compounds.</p> <p>(Chemistry--Organic, TT, v. 7, no. 11) (over)</p>	<p>62-13838</p> <p>I. Lanovskaya, L. M. II. Gantmakher, A. R. III. Medvedev, S. S. IV. Title: Some ... V. Translations, New York</p> <p>ATS</p>	
<p>Office of Technical Services</p>		

<p>Losev, I. P., Smirnova, O. V. and others. INVESTIGATION OF INTERFACIAL POLYESTERIFICATION. [1960] 6p. Order from ATS \$9.60</p> <p>ATS-35N48R</p> <p>Trans. of <u>Vysokomolekulyarnye Soyedineniya</u> (USSR) 1960, v. 2, no. 11, p. 1639-1664.</p> <p>151515</p> <p>(Chemistry--Organic, TT, v. 5, no. 6)</p>	<p>61-12758</p> <p>1. Esters--Polymerization 2. Title: Polyesterification I. Losev, I. P. II. Smirnova, O. V. III. ATS-35N48R IV. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS/RJ:3009</p>			Office of Technical Services
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R-771-N

Adhesion of Polymers, VII Adhesion of
Carboxyl-Containing Copolymers to Various Substitutes,
by S. S. Voyutskiy, et al.

RUSSIAN, per, Vysekemolekilarne Soyedineniya,
Vol II, No 11, 1960, pp 1671-1677.

*JPRS for Picatinny Arsenal

Sci - Phys

ATS

13 Oct 61

Internal Stresses in Coatings. XI. Methods of calculating Internal Stresses in Polymer and Paint and Varnish Coatings, by A. T. Sannikovskii, 22 pp.

RUSSTAN, per, ~~Vestn. Akad. Nauk SSSR~~, Vol. III, No. 11, 1960,
pp 1698-1702. 9210747

ATS

ACC-NP-TR-1017

Sci - Mat & Mat pp 1698-1702 Vol. III 1960 5

Aug 63

341352

Internal Stresses in Coatings, II, Experimental
Methods of Studying Internal Stresses in Polymer
and Paint and Varnish Coatings, by A. T.
Sancharovskiy, G. I. Epifanov, 174 p.

RUSSIAN, per, Vyssokomolekulyarnye Soedineniya,
Vol II, No 11, 1960, pp 1705-1706.

MLL M 10084

Sci - N/M
May 63

AEC-NP-74-1017 229,854
(9210747)

ATS

Internal Stresses in Coatings III, Study of
Internal Stresses in Gelatin and Acetyl
Cellulose Films Applied to Solid Backings, by
A. T. Sanzharovskiy, G. I. Epifanov, 15 pp.

ISSIAN, per, Vysokomolekulyarnye Soedineniya,
Vol. II, No 11, 1960, pp 1709-1714.

ATS

ML M 10023

A-0-NP-7.2-1617

(92107.17) 229,855

Sci - N/M
May 63

Konstantinopol'skaya, M. B., Berstneva, Z. Ya.,
and Kargin, V. A.
HELICAL STRUCTURES OF POLYETHYLENE.
(1961) [5p. 5 refs.
Order from OTS or SLA \$1.10 62-13989

Trans. of Vysokomolekul'nye Soedineniya (USSR)
1960, v. 2 [no. 11] p. 1714-1716.

DESCRIPTORS: *Ethylenes, *Polymers, Micro-
analysis, Microstructure, Electron microscopy.

Secondary structures of polyethylene, exhibiting a
helical structure, have been obtained. (Author)

(Chemistry--Organic, ITT, v. 7, no. 11)

62-13989

- I. Konstantinopol'skaya, M. B.
- II. Berstneva, Z. Ya.
- III. Kargin, V. A.
- IV. Translations, New York

FTS

Office of Technical Services

<p>Kolesnikov, G. S. and Tazan, Khan-min. CARBON-CHAIN POLYMERS AND COPOLYMERS. XXVIII. PREPARATION OF GRAFT COPOLYMERS BY THE REACTION OF POLY(METHYL METHACRYLATE) AND POLY(BUTYLENE AZBLATE). [1960] 6p. Order from ATS \$8.00 ATS-13N49R Trans. of Vysokomolekulyarnyye Soyedineniya (USSR) 1960, v. 2, no. 11, p. 1717-1721.</p> <p style="text-align: center;">131541</p> <p>(Chemistry--Organic, TT, v. 5, no. 8)</p>	<p>61-12764</p> <p>I. Polymers--Synthesis 2. Copolymerization--Analysis 3. Acrylates--Polymerization 4. Ethylenes--Polymerization 5. Title: Graft copolymers I. Kolesnikov, G. S. II. Tazan, Khan-min III. ATS-13N49R IV. Title: Preparation... V. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS/RJ-3013</p> <p>Office of Technical Services</p>
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Zubov, V. P., Kabanov, V. A. and others.
THE INFLUENCE OF PRESSURE ON THE FORMA-
TION OF THE MICROSTRUCTURE OF POLYMER
CHAINS DURING POLYMERIZATION. [1961] sp.
Order from ATS \$8.00

ATS-14N49R

Trans. of Vysokomolekulyarnye Soyedineniya (USSR)
1960, v. 2, no. 11, p. 1722-1727.

ATS/RJ-3616

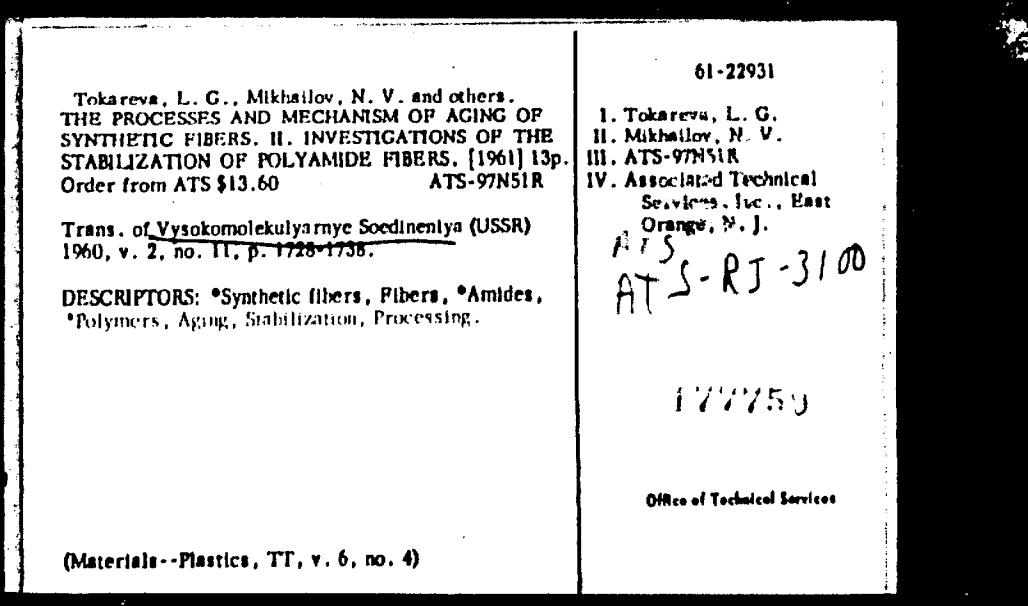
(Chemistry--Organic, TT, v. 5, no. 10)

61-22008

1. Polymers--Microstructure
2. Polymerization--
Physical factors
3. Pressure--Molecular effects
- I. Zubov, V. P.
- II. Kabanov, V. A.
- III. ATS-14N49R
- IV. Associated Technical
Services, Inc., East
Orange, N. J.

13882

Office of Technical Services



Korotkov, A. A., Mitsengendler, S. P., and Aleev, K. M.
EFFECT OF DIETHYLETHER ON THE COPOLYMERIZATION PROCESS OF BUTADIENE WITH
STYRENE. [1963] 7p, 10 refs.
Order from OTS or SLA \$1.10

63-18412

Trans. of *Vysokomolekulyarnye Soedineniya* (USSR).
1960, v. 2 [no. 12] p. 1811-1816.
Another trans. is available from PP in Polymer Science
USSR, v. 3, no. 3, \$100.00/year.

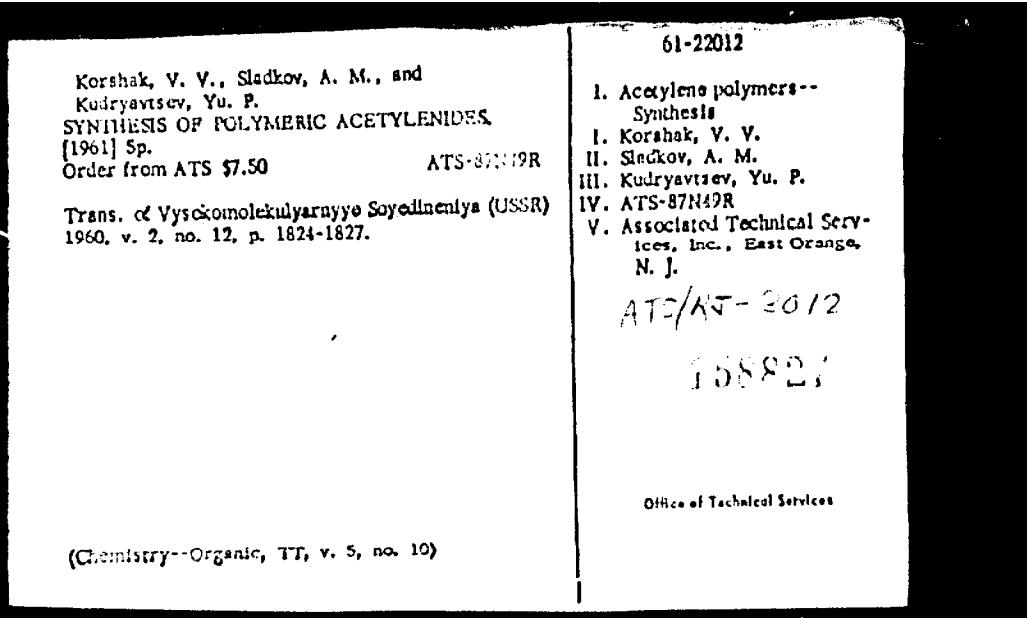
DESCRIPTORS: *Butadienes, *Styrenes, *Ethyl ethers,
Vinyl radicals, Copolymerization, Addition reactions,
Catalysts, *Lithium compounds, Butyl radicals.

The effect of diethyl ether on the polymerization kinetics of divinyl and styrene in benzene at 30 C and on the composition of the resultant polymers was investigated. Addition of 0.05 mole/l ether increases the content of styrene units in the copolymer from 13 (Materials--Plastics, TT, v. 10, no. 9) (over)

63-18412

1. Title: Diethyl ether
- I. Korotkov, A. A.
- II. Mitsengendler, S. P.
- III. Aleev, K. M.

Office of Technical Services



Gluzman, M. Kh., Dashevskaya, B. I., and
Bodnya, V. M.
PREPARATION OF POLYETHYLENE OXIDES BY
POLYMERIZATION OF ETHYLENE OXIDE. [1961]
[10]p. 20 refs.
Order from OTS or SLA \$1.10 62-13839

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2 [no. 12] p. 1832-1838.

DESCRIPTORS: *Ethylene oxide, *Polymers,
Preparation, Polymerization, Catalysts.

Two methods of preparing polyethylene oxides were developed: by polymerization of ethylene oxide in an autoclave under pressure and by bubbling gaseous ethylene oxide through alkaline solutions of the glycol in apparatus of the column type. The composition of the polyethylene oxides and their properties are determined principally by the ethylene oxide : water and ethylene oxide : glycol ratios. The molar ratio of (Chemistry--Organic, TT, v. 7, no. 11) (over)

62-13839

I. Gluzman, M. Kh.
II. Dashevskaya, B. I.
III. Bodnya, V. M.
IV. Translations, New York

Office of Technical Services

Tsen, Khan-min and Kolesnikov, G. S.
CARBON CHAIN POLYMERS AND COPOLYMERS.
XXIX. SYNTHESIS OF DIPHILIC GRAFT COPOLY-
MERS. [1961] [9p. 8 refs.
Order from OTS or SLA \$1.10 62-13769

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2 [no. 12] p. 1870-1874.

DESCRIPTORS: *Polymers, Synthesis, Copolymeriza-
tion, Esters, *Acrylic acids.

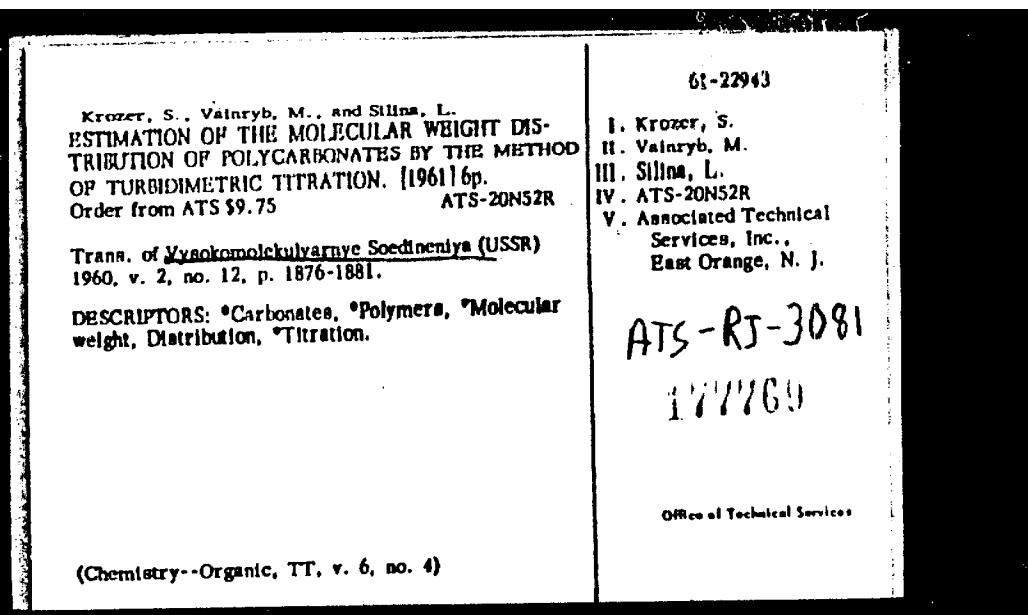
It has been shown that graft copolymers of the diphilic type may be produced by heating mixtures of methacrylic and C-hydroxypelargonic acids or of methacrylic acid and the polyhydroxypelargonate in the presence of p-toluenesulfonic acid. The properties of the resultant graft copolymers have been investigated. It has been shown that spherulites are formed in the graft copolymers. (Author) (See also 60-18470,
61-10703, 61-20643)

62-13769

- I. Title: Graft polymers
I. Tsen, Khan-min
II. Kolesnikov, G. S.
III. Title: Synthesis ...
IV. Translations, New York

(Chemistry-Organic, TI, v. 7
no. 11)

Office of Technical Services



Investigation of Diffusion Processes in
Some Polymers IV. Reversible Changes in
Diffusion Characteristics Under Irradiation,
by N.S. Tikhomirova, Yu.M. Malinskij
RUSSIAN, per. Vysokomolekulyarnye Soedineniya
Vol 2, 1960, pp 1349-1359. 9232591
AEC UCRL-Tr-10009

Sci/Chemistry
May 66

300,499

Mel'nikova, E. P., Vansheidt, A. A. and others.
THE REACTION OF METALLIC SODIUM WITH
BIS(CHLOROMETHYL) DERIVATIVES OF AROMATIC
HYDROCARBONS. Pt. 1 of The Use of the Wurtz Re-
action for the Synthesis of Polymers of the Polyxylylene
Type. [1961] 8p.
Order from ATS \$15.15

ATS-42N57R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, no. 9, p. 1383-1390.

DESCRIPTORS: *Chemical reactions, *Sodium, *Chlo-
rides, Methyl radicals, Synthesis, Polymers.

(Chemistry--Organic, TT, v. 7, no. 10)

62-12654

- I. Mel'nikova, E. P.
- II. Vansheidt, A. A.
- III. Title: Use ...
- IV. ATS-42N57R
- V. Associated Technical Services, Inc., East Orange, N. J.

ATS-RJ-3070

Office of Technical Services

Lanovakaya, L. M., Gentmakher, A. R., and
Medvedev, S. S.
POLYMERIZATION OF ETHYLENE BY THE COM-
PLEX α -TICl₃-AIR₃ CATALYST IN THE PRESENCE
OF VARIOUS MONOMERS. I. THE INFLUENCE OF
VARIOUS MONOMERS ON THE POLYMERIZATION
OF ETHYLENE. [1960] 8p.
Order from ATS \$12.95

ATS-77M46R

Trans. of Vysokomolekularnyye Soyedineniya (USSR)
1960, v. 2, no. 5, p. 1391-1397.

ATS-RJ-2664
147,026

(Chemistry--Organic, TT, v. 5, no. 5)

61-12372

1. Ethylenes--Polymerization
 2. Complex compounds--
Catalytic properties
 3. Aluminum compounds
(Organic)--Catalytic
properties
 4. Titanium compounds
(Organic)--Catalytic
properties
- I. Lanovakaya, L. M.
II. Gentmakher, A. R.
III. Medvedev, S. S.
IV. ATS-77M46R
V. Associated Technical
Services, Inc., East
Orange, N. J.
VI. Title: Influence...

Office of Technical Services

Arbuzova, H. A., Kostikov, R. R., and Propp,
L. N.

POLYMERIZATION OF DIVINYLBENZAL. [1961]
[5]p. 5 refs.

Order from OTS or SLA \$1.10

62-13908

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2 [no. 9] p. 1402-1404

DESCRIPTORS: *Polymerization, Acid, Benzenes,
Catalysts, *Vinyl radicals.

Polymerization in the presence of initiators of the
radical type yielded a linear polymer of divinylbenzal,
whose physical properties and analytical data indicated
that it had a cyclic structure.

(Chemistry--Organic, TT, v. 7, no. 11)

62-13908

I. Arbuzova, H. A.
II. Kostikov, R. R.
III. Propp, L. N.
IV. Translations, New York

Office of Technical Services

Shiyapnikov, Yu. A., Miller, V. B. and others.
A STUDY OF THE COMPARATIVE EFFECTIVENESS
OF SOME ANTIOXIDANTS. Pt. 3 of the Thermo-
Oxidative Degradation of Polypropylene. [1962] 4p.
Order from ATS \$6.25 ATS-81N52R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, no. 9, p. 1409-1413.

DESCRIPTORS: Propenes, *Antioxidants, Effectiveness,
Polymers, Heat.

(Chemistry--Organic, TT, v. 7, no. 11)

62-12788

I. Shiyapnikov, Yu. A.
II. Miller, V. B.
III. Title: Thermo-Oxidative...
IV. ATS-81N52R
V. Associated Technical
Services, Inc.,
East Orange, N. J.

Office of Technical Services

Kolensnikov, G. S., Rodionova, E. P. and others.
CARBON-CHAIN POLYMERS AND COPOLYMERS.
XXVII. THE POLYMERIZATION AND COPOLYMERI-
ZATION OF THE DI-N-BUTYL ESTER OF VINYL-
PHOSPHINIC ACID. [1961] {8}p. 7 refs.
Order from OTS or SLA \$1.10

61-20643

- 61-20643
I. Kolensnikov, G. S.
II. Rodionova, E. P.
III. Title: Polymerization ...

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
(1961), v. 2, [no. 9] p. 1432-1437.

DESCRIPTORS: Polymerization, *Copolymerization,
Condensation reactions, Polymers, Cyclic compounds,
Chlorine compounds, *Phosphinic acids, *Styrenes,
*Vinyl radicals, *Chlorides, *Acetates, Thermo-
chemistry, Mechanical properties, Esters, Butyl
radicals.

The polymerization of the di-n-butyl ester of vinyl-
phosphinic acid was studied under different conditions.
(Chemistry--Organic, TT, v. 7, no. 5) (over)

ATS-RJ-3074

Office of Technical Services

Determination of the Structural Glass
Transition Temperature From Experimental
Curves, by Yu. A. Gorbatkina. 6p
RUSSIAN, per, Vysokomolekulyarnye Soedineniya,
Vol 2, No 10, 1960, pp 1456-1458.
SIA TT-66-10656

Sci-M&M
Jul 66

306,108

<p>POLYMER SCIENCE USSR, 1962, VOL. 3, NO. 3, P. 367-534. Jan 63, 1v. Order from PP \$100.00/year</p> <p>Trans. of <i>Vysokomolekulyarnye Soedineniya (USSR)</i> 1960, v. 2, no. 10, p. 1449-1455, 1475-1480, 1486-1499, 1521-1535; no. 11, p. 1613-1634, 1645-1658, 1678-1687, 1722-1738, 1745; no. 12, p. 1811-1827, 1839-1844, 1860-1869. Abstracts are included of selected articles from v. 4, no. 2.</p> <p>DESCRIPTORS: *Polymers, Chemistry, Condensation reactions, *Chlorides, *Pyrocatechol, *Acrylic resins, *Styrenes, Degradation, *Molecular spectroscopy, *Benzenes, Polymerization, Copolymerization, *Ethylenes, *Propenes, Deformation, Mechanical properties, *Butadienes, *Chemical bonds, *Glycols, *Catalysts, Anisotropy, Pressure, *Amides, *Fibers (Synthetic), *Vinyl radicals, *Ethyl ethers, *Sodium, (Chemistry--Organic, TT. v. 10, no. 4) (over)</p>	<p>63-17527-3</p> <p>I. Pergamon Press, Inc., New York</p> <p>Office of Technical Services</p>
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<p>Azimov, S. A., Usmanov, Kh. U. and others. γ-RAY-INDUCED GRAFTING OF SOME MONOMERS TO NATURAL SILK AND CAPRON. [1961] 4p. Order from ATS \$6.25 ATS-49N55R</p> <p>Transl. of <i>Vysokomolekulyarnye Soedineniya</i> (USSR) 1960, v. 2, no. 10, p. 1459-1462.</p> <p>DESCRIPTORS: *X-rays, *Silk, Fibers, Chemical reactions.</p> <p>(Chemistry--Organic, TT, v. 6, no. 12)</p>	<p>61-25723</p> <p>I. Title: Capron</p> <p>I. Azimov, S. A.</p> <p>II. Usmanov, Kh. U.</p> <p>III. ATS-49N55R</p> <p>IV. Associated Technical Services, Inc., East Orange, N. J.</p> <p>111</p> <p>Office of Technical Services</p>
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<p>Spasskiy, S. S. and Molchanova, T. V. THE COPOLYMERIZATION OF POLYESTERS WITH VINYL- AND ALLYL MONOMERS. XI. COPOLYMERI- ZATION OF POLYDIETHYLENE GLYCOL FUMARATE ADIPLATE AND LOW MOLECULAR POLYDIETHYL- ENE GLYCOLS FUMARATE WITH STYRENE. [1961] (8 pp., 9 refs.) Order from OTS or SLA \$1.10 61-10980</p> <p>Transl. of <u>Vysokomolekulyarnye Soedineniya (USSR)</u> 1960, v. 2 [no. 10] p. 1481-1485.</p> <p>DESCRIPTORS: *Copolymerization, Polymers, *Esters, *Vinyl radicals, *Allyl radicals, *Ethylenes, *Glycols, Styrenes, Fumaric acids, Adipic acids.</p> <p>(Chemistry--Organic, TT, v. 6, no. 2)</p>	<p>61-10980</p> <p>I. Spasskiy, S. S. II. Molchanova, T. V. III. Title: Copolymerization...</p> <p>10980</p> <p>Office of Technical Services</p>
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Kargin, V. A., Markova, G. S., and Kovaleva, V. P.
INVESTIGATION OF THE STRUCTURE AND PROPERTIES OF ETHYLENE AND PROPYLENE COPOLYMERS. [1961] 7p. (2 figs. omitted) 3 refs.
Order from OTS or SLA \$1.10 62-10596

Trans. of [Vysokomolekulyarnye Soedineniya] (USSR)
1960, v. 2, no. 10, p. 1531-1534.

DESCRIPTORS: *Ethylenes, *Propenes, Mechanical properties, Molecular structure, *Polymers, Deformation, Crystals, Crystallization, Stresses.

Tests showed that with the increase of irregularity in the copolymer chains, the perfectness of crystalline regions is reduced. The diffraction picture of the crystalline regions is structurally similar to that of polyethylene or polypropylene. There are no intermolecular structures or changes in the parameters that would suggest the arising of stresses in the crystals. (Chemistry--Physical, TT, v. 7, no. 11) (over)

62-10596

I. Kargin, V. A.
II. Markova, G. S.
III. Kovaleva, V. P.

Office of Technical Services

<p>Terent'yev, A. P., Rode, V. V., and Rukhadze, Ye. G. STUDIES OF CHELATE POLYMERS. I. SYNTHESIS OF CHELATE POLYMERS FROM 3,5'-METHYLENE- BIS-SALICYLALDEHYDE. (1960) 7p. Order from ATS \$13.40 ATS-63N48R</p> <p>Trans. of Vysokomolekulyarnyye Soyedineniya (USSR) 1960, v. 2, no. 10, p. 1557-1563.</p> <p>151500 JUL 62 - 110226</p> <p>(Chemistry--Organic, TT, v. 5, no. 8)</p>	<p>61-12765</p> <p>I. Chelate compounds-- Synthesis II. Polymers--Synthesis I. Terent'yev, A. P. II. Rode, V. V. III. Rukhadze, Ye. G. IV. Title: Synthesis... V. ATS-63N48R VI. Associated Technical Services, Inc., East Orange, N. J. A/R/KJ 2007</p> <p>Office of Technical Services</p>
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Kozlov, P. V., Iovleva, M. M. and others.
THE SOLUBILITY OF SOME GRAFTED COPOLYMERS. [1961] 10p. (3 figs., omitted) 9 refs.
Order from LC or SLA m\$1.80, ph\$1.80 61-10990

Trans. of Vysokomolekulyarnyye Soyedineniya
(USSR) 1960, v. 2 [no. 10] p. 1580-1585.

The state diagrams were studied of a series of grafted copolymers of dihalic type (starch-polystyrene, polyethylene terephthalate-polyacrylic acid) and grafted copolymers containing starting component having common solvents (polyisobutylene-polystyrene, polystyrene-polyvinyl acetate). In all cases the grafting causes lessening of the true solubility of the grafted copolymer as compared with the starting homopolymers. For the grafted copolymer from polystyrene and polyvinyl acetate the dissolution process is described by means of thermodynamical functions on the basis of data on integral mixing heat with benzene and hydrogenated monomers.

(Chemistry--Organic, TT, v. 5, no. 11) (over)

61-10990

1. Polymers--Solubility
2. Styrene polymers--
Solubility
3. Starch--Solubility
4. Isobutene polymers--
Solubility
5. Title: Graft copolymers

I. Kozlov, P. V.
II. Iovleva, M. M.

10990

Office of Technical Services

The Mechanism of the Transition From Forced Elastic
to Highly Elastic Rupture, by V. E. Gulin,
I. M. Chernina.

RUSSIAN, per, Vysokomolekulovye Soedin.
MEKh Vol II, No 11, 1960, pp 1613-1615.

MLL/RTB 1960

Sci - Chem

ATS

Apr 62

193,833

Polyakov, A. L., Derevitskaya, V. A., and Rogovin, Z. A.

INVESTIGATION OF THE POSSIBILITY OF PREPARING UNSATURATED COMPOUNDS OF CELLULOSE BY THE CHUGAEV REACTION

I. Chugaeva, et. 17 Jul 63, Sp 9refs Courtaulds Misc. Lit. 3655; [DSIR] NLL M 5440.
Order from OTS, SLA, or ETC \$1.10 TT-64-13225

Trans. of Vysokomol[ekhikal'nye] Soedineniya (USSR) 1960, v. 2, no. 3, p. 386-389.

(Chemistry--Organic, TT, v. 12, no. 2)

TT-64-13225

- I. Polyakov, A. L.
- II. Derevitskaya, V. A.
- III. Rogovin, Z. A.
- IV. Courtaulds-NL-3655
- V. DSIR-NLL-M 5440
- VI. Courtaulds Ltd.
Manchester (England)

Office of Technical Services

Composition Equations of Three-Component Copolymers
Part I, by A. I. Tarasov,
RUSSIAN, per, Vysokomol Soedin, Vol 2, No 11,
1960, pp 1601-1607,
ATS RJ-5365

Sci-Chem
June 70

POLYMER SCIENCE USSR, 1962, VOL. 3, NO. 1,
P. 1-210. May 62. 1v.
Order from PP \$100.00/year

Trans. of *Vysokomolekulyarnye Soedineniya* (USSR)
1961, v. 3, no. 1, p. 10-13, 56-65, 81-83, 99-104,
134-143, 150-151, 161-163; no. 2, p. 184-204, 213-
214, 232-236, 290-309; no. 3, p. 363-367, 371-381,
408-413, 420-434, 470-474. Abstracts are included of
selected articles from v. 3, nos. 4-8.

DESCRIPTORS: *Polymers, Chemistry, Scientific re-
search, Light, Scattering, *Chemical bonds, Photo-
chemistry, *Amides, Polymerization, *Ethylenes,
Radiation chemistry, *Acrylic acids, Phase studies,
*Phthalates, *Styrenes, Electron bombardment, Re-
action kinetics, *Esters, Morphology, *Vinyl radicals,
*Acetates, *Diffusion, *Nuclear magnetic resonance,
*Acrylic resins, Copolymerization, *Methanols,
(Chemistry--Organic, TT, v. 10, no. 4) (over)

63-17527-1

I. Pergamon Press, Inc.,
New York

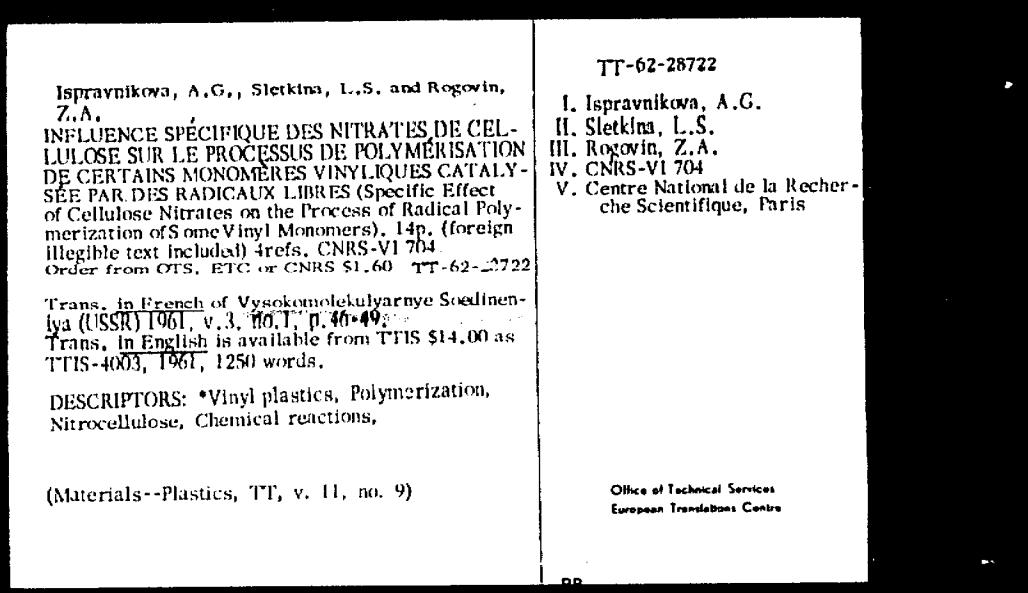
Office of Technical Services

<p>Rafikov, S. R. and Sorokina, R. A. THERMAL-OXIDATIVE TRANSFORMATIONS OF POLYAMIDES. Pt. 4 of Chemical Transformation of Polymers. [1961] 10p. Order from ATS \$15.75 ATS-40N53R</p> <p>Type. of Vysokomolekulyarnye Soedineniya (USSR) 1961, v. 3, no. 1, p. 21-29.</p> <p>DESCRIPTORS: *Amides, *Polymers, Oxidation, Transformations, Thermochemistry.</p> <p>(Chemistry--Organic, TT, v. 6, no. 6)</p>	<p>61-25076</p> <p>I. Rafikov, S. R. II. Sorokina, R. A. III. ATS-40N53R IV. Title: Chemical... V. Associated Technical Services, Inc., East Orange, N. J.</p> <p>NLL/H.355.R ATS/RJ. 2996 176736</p> <p>Office of Technical Services</p>
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<p>Celler, B. E. CHANGES IN THE DENSITY OF MOLECULAR PACKING IN POLAR CARBON-CHAIN POLYMERS (1961) 4p. Order from ATS \$8.40</p> <p>ATS-41N53R</p> <p>Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1961, v. 3, no. 1, p. 33-36.</p> <p>DESCRIPTORS: *Polymers, Molecular structure, Density.</p> <p>(Chemistry--Organic, TT, v. 6, no. 7)</p>	<p>61-25176</p> <p>I. Celler, B. E. II. ATS-41N53R III. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS-PI-3082</p> <p>1 1 1 1</p> <p>Office of Technical Services</p>
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<p>Uskov, I. A., Tarasenko, Yu. G., and Kuanitsyna, T. A. FILLED POLYMERS. IV. COMPOUNDING OF DIS-SOLVED POLYMETHYLMETHACRYLATE WITH FILLERS. [1963] [8]p. 9 refs. Order from OTS or SLA \$1.10 63-16595</p> <p>Trans. of <u>Vysokomolekulyarnye Soedineniya (USSR)</u> 1961, v. 3, no. 1, p. 37-40. Other translations are available from ATS \$6.25 as ATS-94P59R [1962] 4p.; from ICE in v. 1, no. 1, \$15.00/year; an abstract trans. from OTS or SLA \$1.10 as 61-19866, AID-61-44, 10 Apr 61, 2p.</p> <p>DESCRIPTORS: *Acrylic resins, Polymers, *Fillers, Methyl radicals, Bentonite.</p> <p>Using modified bentonites and polymethylmethacrylate as an example, a method was worked out for adding a (Materials--Plastics, TT, v. 10, no. 7) (over)</p>	<p>63-16595</p> <p>I. Title: Methyl methacrylate I. Uskov, I. A. II. Tarasenko, Yu. G. III. Kusnitsyna, T. A. IV. Title: Compounding ...</p>	
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Office of Technical Services



<p>Korshak, V. V., Vinogradova, S. V. and others, A STUDY OF SOME RELATIONSHIPS GOVERNING POLYCONDENSATION OF DICARBOXYLIC ACID CHLORIDES WITH DIHYDRIC PHENOLS IN HIGH- BOILING SOLVENTS. Pt. 30 of Hetero-Chain Polyesters. [1961] 6p. Order from ATS \$12.00</p> <p>ATS-42N53R</p> <p>Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1961, v. 3, no. 1, p. 66-71.</p> <p>DESCRIPTORS: *Carboxylic acids, *Chlorides, *Phenols, Condensation reactions, Organic solvents, *Esters, Polymerization.</p> <p>(Chemistry--Organic, TT, v. 6, no. 6)</p>	<p>61-25041</p> <p>I. Korshak, V. V. II. Vinogradova, S. V. III. Title: Hetero-Chain... IV. ATS-42N53R V. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS/RJ-2994 17611U</p> <p>Office of Technical Services</p>
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<p>Korshak, V. V., Vinogradov, S. V., and others. HETEROCHAIN POLYESTERS. [XXXI]. A STUDY OF THE CHEMICAL PROPERTIES OF POLYARLATES. [1961] Sp. Order from ATS \$14.00 ATS-43N53R</p> <p>Trans. of <u>Vysokomolekulyarnye Soedineniya</u> (USSR) 1961, v. 3, no. 1, p. 72-80.</p> <p>DESCRIPTORS: *Esters, *Polymers, Chemical properties.</p> <p>(Chemistry--Organic, TT, v. 6, no. 7)</p>	<p>61-25177</p> <p>1. Title: Heterochain polymers 2. Title: Polyarlates I . Korshak, V. V. II . Vinogradov, S. V. III . Title: Study ... IV . ATS-43N53R V . Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS/RD-2995 1513-00</p>
<p>Office of Technical Services</p>	

Katibnikov, M. A. and Ermolenko, I. N.
ABSORPTION AND LUMINESCENCE SPECTRAL
STUDY OF DYE-POLYELECTROLYTE INTERACTION
IN SOLUTIONS. I. AQUEOUS SOLUTIONS OF
RHODAMINE 6G IN THE PRESENCE OF METH-
ACRYLIC ACID. [1961] 15p. (9 refs. 3 figs. omitted)
6 rets.

Order from OTS or SLA \$1.60 62-10663

Trans. of Vysokomolek[ulyarnye] Soedin[enya] (USSR)
[1961] v. 3, no. 1, p. 105-112.

DESCRIPTORS: *Dyes, Organic compounds, Acrylic
acids, Polymers, Methanes, Electrolytes, Absorption
spectra, Luminescence, Polarization, Optics,
Pigments.

A study was made of the influence of the concentration
of polymethacrylic acid on absorption spectra, lumines-
cence spectra, intensity of luminescence, and also the
(Chemistry--Organic, TT, v. 7, no. 12) (over)

62-10663

I. Katibnikov, M. A.
II. Ermolenko, I. N.
III. Title: Aqueous...

Office of Technical Services

Isotactic Polyacrylic Acid and Its Salts, by
V. A. Kargin, et al.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
Vol III, No 1, 1961, pp 134-138.

Sci - Chem

MLL M. 3371
SLA 62-13770
191, 907

Apr 62

Investigation of the Structure of Isotactic
Polyacrylic Acid and Its Salts, by V. A.
Kargin, et al.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
Vol III, No 1, 139-143.
[Handwritten: 1961]

ILL N. 3376
SLA 62-13774
[Handwritten: 191, 908]

Sci - Chem

Apr 62

Korolev, G. V., Makhonina, L. I., and Berlin, A. A.
KINETIC FEATURES OF THE POLYMERIZATION OF
SOME POLYACRYLATE ESTERS. Pt. 1 of Polymeri-
zation in Highly Viscous Media, and Three-Dimen-
sional Polymerization. [1961] 8p.
Order from ATS \$14.95 ATS-33N57R

Trans. of Yysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 2, p. 198-204.

DESCRIPTIONS: *Polymerization, Acrylic acids,
*Esters, *Reaction kinetics.

(Chemistry--Organic, TT, v. 7, no. 10)

62-12661

I. Korolev, G. V.
II. Makhonina, L. I.
III. Berlin, A. A.
IV. Title: Polymerization ...
V. ATS-33N57R
VI. Associated Technical
Services, Inc., East
Orange, N. J.

ATS-RJ-3060

Office of Technical Services

Korshak, V. V., Frunze, T. M. and others.
HETEROCHAIN POLYAMIDES. XXVIII. THE SIGNIFI-
CANCE OF HYDROCHLORIC ACID ACCEPTORS IN
THE PREPARATION OF POLYAMIDES BY INTER-
FACIAL POLYCONDENSATION. [1961] 4p.
Order from ATS \$6.25 ATS-44N53R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 2, p. 205-207.

DESCRIPTORS: *Amides, Synthesis, Hydrochloric
acid, Condensation reactions, Polymerization,
Polymers.

(Chemistry--Organic, TT, v. 6, no. 8)

61-25347

- I. Korshak, V. V.
- II. Frunze, T. M.
- III. Title: Significance...
- IV. ATS-44N53R
- V. Associated Technical Services, Inc.,
East Orange, N. J.

ATS/RJ-3014

145231

Office of Technical Services

KINETICS OF VINYL ACETATE POLYMERIZATION
IN METHANOL, BY L. ALEKSANDRU, M. OPRISH. 7 pp.

RUSSIAN, PR, VYSOKOMOLEKULYARNYYE
SOEDINENIYA, VOL III, NO 2, 1961, PP 3⁰6-309.

NLL M.348*1

SCI - CHEM

CTS 63-18774

JUN 62

199,104

(SF-1879)

The International Macromolecular Chemistry
Symposium in Moscow, by P. V. Kozlov, V. A.
Kabanov, N. A. Plate, 47 pp.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
Vol III, No 2, 1961, pp 328-348.

JPRS 11387

Sci - Chem
Jan 22

17/1857

Thermal Degradation of Fluorinated Elastomers of
the Kel-F and PKP/VF Types, by T. G. Degteva.

RUSSIAN, per, Vysok Soed, No 3, 1961, 5 pp.

RAB 967

182, 626

Sci - Phys

Feb 62

Investigation of Molecular Interactions in
Polymer Solutions by the Method of Converting the
into Colloidal Systems, by S. Glickman.
RUSSIAN, per, Vysokomolek Ulyarnye Soedineniya
Vol. 3, No. 3, 1961, pp 353-358
GB/39/PA PVM 131/A/3^b; 4

Sci -
Aug 67

336-139

<p>Korshak, V. V., Fruze, T. M., and others. HETEROCHAIN POLYAMIDES. [XXIX]. THE IMPORTANCE OF THE HYDROLYSIS OF DICARBOXYLIC ACID CHLORIDES IN INTERFACIAL POLYCONDENSATION. [146] 5p. Order from ATS \$8.00</p> <p>ATS-45N53R</p> <p>Trans. of Vysokomolekulyarnye Soedineniya, 1961, v. 3, no. 3, p. 571-575.</p> <p>DESCRIPTORS: *Amides, *Polymers, Condensation reactions, *Carboxylic acids, *Chlorides, Hydrolysis.</p> <p>(Chemistry--Organic, TT, v. 6, no. 7)</p>	<p>61-25178</p> <p>I. Title: Heterochain polymers I. Korshak, V. V. II. Fruze, T. M. III. Title: Importance ... IV. ATS-45N53R V. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS/RJ-3015</p> <p>151321</p>
Office of Technical Services	

Parini, V. P., Kazakova, Z. S. and others.
POLYMERS WITH A SYSTEM OF CONJUGATED
BONDS AND WITH HETERO ATOMS IN THE CON-
JUGATION CHAIN. Pt. 12 of Preparation and Proper-
ties of Some Poly(Aminoquinones). [1961] 7p.
Order from ATS \$9.00 ATS-51N53R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 3, p. 402-407.

DESCRIPTORS: *Polymers, *Chemical bonds, Molec-
ular structure, Quinones, Amines.

(Chemistry--Organic, TT, v. 7, no. 2)

61-25350

I. Parini, V. P.
II. Kazakova, Z. S.
III. Title: Preparation ...
IV. ATS-51N53R
V. Associated Technical
Services, Inc., East
Orange, N. J.

AT&T/KST-2993

Office of Technical Services

Time-Temperature Dependence of the Strength
of Polymer Fibres, by S. N. Zhurkov,
S. A. Abasov.

RUSSIAN, per, Vysokomol Soedin, Vol III, No 3,
1961, pp 441-449.

NLM 1962 18
TIL/T 5259
JAN 62 - R. J. H.

181, 296

Sci - Phys

Jan 62

The Role of Chemical and Intermolecular Bonds
in Polymer Rupture, by S. N. Zhurkov, S. A.
Abazov.

RUSSIAN, per, Vysokomol Soedin, Vol III, No 3,
1961, pp 450-455.

NLL/M.C.B.
TIL/T 5260
181, 292

Sci - Chem

Jan 62

<p>Rodionova, Ye. F. and Kolesnikov, G. S. POLYMERIZATION AND COPOLYMERIZATION OF VINYLIOPHOSPHONIC DICHLORIDE, PT. 31. [1961] 5p. Order from ATS \$8.15 ATS-89N51R</p> <p>Trans. of Vysokomolekulyarnyye Soyedineniya (USSR) 1961, v. 3, no. 3, p. 459-463</p> <p>DESCRIPTORS: *Copolymerization, *Polymerization, Vinyl radicals, Phosphonyl radicals, Chlorides, *Polymers.</p> <p>(Chemistry--Organic, TT, v. 6, no. 3)</p>	<p>61-22613</p> <p>I. Rodionova, Ye. F. II. Kolesnikov, G. S. III. ATS-89N51R IV. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS/RJ-3002</p> <p>17532-2</p> <p>Office of Technical Services</p>
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OXIDATION OF HYDROCARBONS IN THE PRESENCE OF
INHIBITORS, BY D. RYSHAVY.

RUSSIAN PER, VYSOKOMOL SOEDIN, VOL III, NO 3, 1961,
pp 464-469.

TIL T 5287

SCI - CHEM

210,227

SEP 62

Ryshavy, D. and Balaban, L.
EFFECT OF POLYMERIZATION CATALYSTS ON
THE DESTRUCTION RATE OF ISOTACTIC
POLYPROPYLENE, [1963] 6p. 4 refs.
Order from OTS or SLA \$1.10

63-18410

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 3, p. 470-474.
Other translations are available from OTS or SLA
\$1.60 as 63-10811, 9 May 62 [11]p. and from PP in
Polymer Science USSR, v. 3, no. 1, \$100.00/year.

DESCRIPTORS: *Polyethylene plastics, *Propenes,
Polymers, Degradation, *Catalysts, *Ziegler
catalysts, Aluminum compounds, Zinc compounds,
Ethylenes, Titanium compounds, Chlorides,
*Antioxidants.

The influence of the catalysts used during polymerization
(Materials+Plastics, TT, v. 10, no. 8) (over)

63-18410

I. Ryshavy, D.
II. Balaban, L.

Office of Technical Services

63-17527-4

POLYMER SCIENCE USSR, 1962, VOL. 3, NO. 4,
P. 535-758. Feb 63, 1v.
Order from PP \$100.00/year

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 4, p. 505-520, 530-535, 541-554,
562-569, 585-593, 637-641; no. 5, p. 657-661, 679-
698, 706-710, 716-723, 748-757, 787-793; no. 6,
p. 801-805, 820-832, 841-846, 861-864, 870-890,
898-900, 908-918, 931-935. Abstracts are included of
selected articles from v. 4, nos. 3-4.

DESCRIPTORS: *Polymers, Chemistry, Copolymeriza-
tion, *Radiation chemistry, *Ethylenes, *Phthalates,
*Benzoyl radicals, *Peroxides, *Ethyl radicals,
*Amines, *Serum-albumin, Polymerization, *Acrylic
resins, *Vinyl radicals, *Acetates, *Thio radicals,
*Valeric acids, Adhesion, *Propenes, *Titanium com-
pounds, *Chlorides, *Amides, *Styrenes, *Butenes,
(Chemistry--Organic, TT, v. 10, no. 4) (over)

I. Pergamon Press, Inc.,
New York

Office of Technical Services

Spaskii, S. S. and Karas, L. Ya.
ZUM PROBLEM DER INDIVIDUELLEN QUANTITATIVEN AKTIVITATSCHARAKTERISTIK UNGESATTIGTER VERBINDUNGEN BEI DEN KOPOLYMERISATIONS-REAKTIONEN (The Individual and Quantitative Characteristic of the Activity of Unsaturated Compounds During Copolymerization Reactions). 22p.
Order from TIB \$3.35

Trans. [in German] of Vysokomolekulyarnye Soedineniya (USSR) 1961, v. 3, no. 4 [p. 505-514].

DESCRIPTORS: *Copolymerization. Chemical reactions. Organic compounds.

(Chemistry--Organic, TT, v. 9, no. 11)

62-27279

I. Spaskii, S. S.
II. Karas, L. Ya.
III. Technische Informationsbibliothek, Hannover (West Germany)

Office of Technical Services

The Copolymerization of bis-(Alkylamino)
Alkyl- or Arylboron With Organic Diisocyanates,
by V. V. Korshak, N. I. Bekasova, 6 pp.

RUSSIAN, per Vysokomolekulovannye Soyedineniya,
Vcl III, No 4, 1961, pp 521-524. 9676329

FID-IT-62-25

Sci - Chem

194, 120

4 May 62

The Copolymerization of B-Substituted
Borazoles With Hexamethylene Diisocyanate,
by V. V. Korshak, V. A. Zamyatina, 7 pp.

RUSSIAN, per, Vysokomolekulyarnye
Soyedineniya, Vol III, No 4, 1961,
pp 525-529. 9676329

FID-TT-62-25

Sci - Chem

194, 131

4 May 62

Golova, O. P., Epstein, Ya. E., and Dobrynina, L. I.
THE EFFECT OF INORGANIC COMPONENTS ON
THE CLEAVAGE OF C-C-BONDS DURING THERMAL
DEGRADATION OF CELLULOSE (Vlyyanie Neorganicheskikh Komponentov na Rasryf C-C-Svyazi pri Termicheskom Raspade Cellulozy). Sep 63 [7p] 7refs
FPRB Trans. no. 160.
Order from NRCC

NRCC-C-4553

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 4 [p. 536-540]. (Abstract available)

DESCRIPTORS: *Cellulose, *Pyrolysis, Chemical
bonds, Inorganic substances, *Salts, Chlorides,
Sulfates, Acetates.

Inorganic salts exert a selective effect on the chemical
transformation of cellulose at high temperatures.
Chlorides of the monovalent metals have the highest
(Chemistry, TT, v. II, no. 3) (over)

TT-64-12033

- I. Golova, O. P.
- II. Epstein, Ya. E.
- III. Dobrynina, L. I.
- IV. FPRB Trans-160
- V. NRCC-C-4553
- VI. Forest Products Research
Branch (Canada)
- VII. Bureau of Translations
(Canada)

Office of Technical Services

Distinctive Features of the Proton Magnetic
Resonance Spectra of a and b forms of Polypeptide
Chains, by D. Shigorin.

RUSSIAN, per, Vestnik Vysokomolekulyarnye
Soedineniya, Vol III, No 4, 1961, pp 560-561.

CSIRO/Mo 5867

Sci-Phys
May 63

CTI 63-1576

229,863

INVESTIGATIONS IN THE FIELD OF CYCLIC
POLYMERIZATION AND COPOLYMERIZATION.
III. SYNTHESES AND CYCLIC POLYMERIZATION
OF ALIPHATIC DIVINYL ACETALS, BY
S. G. MATSOYAN, ET AL.

RUSSIAN, PER, VYSOKOMOLEKUL SOEDINENIYA,
VOL III, 1961, PP 562-569.

NLL M. ~~1639~~ 3485

199,106

SCI - CHEM

Spectral Investigation of Products Formed During Polymerization of Styrene With 9-Vinylanthracene Additions, by A. S. Cherkasov, K. G. Voldeikina,
10 pp.

RUSSIAN, per, Vysokomolekulyarnye Soyedineniya,
Vol III, 1961, pp 570-.

AEC Tr-5065

Sci - Chem
Jul 62
List 70

204, 728

<p>Andrianov, K. A. and Pichkhadze, Sh. V. REACTIONS OF POLY-(ORGANOTITANOSILOXANE) FORMATION. [1961] 6p. Order from ATS \$9.00</p> <p>ATS-05N53R</p> <p>Trans. of <i>Vysokomolekulyarnye Soedineniya (USSR)</i> 1961, v. 3, no. 4, p. 577-581.</p> <p>DESCRIPTORS: Metalorganic compounds, *Titanium compounds, *Silicones, Polymers, Synthesis, Chemical reactions.</p>	<p>61-25175</p> <p>I. Andrianov, K. A. II. Pichkhadze, Sh. V. III. ATS-05N53R IV. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATC/RJ-2997</p> <p>161018</p>
<p>Office of Technical Services</p>	

Tsvetkova, V. I., Pirogov, O. N. and others.
KINETICS AND MECHANISM OF OLEFINS POLYMERIZATION ON COMPLEX CATALYSTS. I. THE KINETIC EQUATIONS AND RATE CONSTANTS OF α -OLEFINS POLYMERIZATION ON THE SYSTEM $TiCl_3$ - Al (C_2H_5)₃ FOR DIFFERENT MANNERS OF ACCOMPLISHING THE PROCESS. [1962] 11p. 5 refs.

Order from OTS or SLA \$1.60 62-14819

Trans. of Vysokomolekulyarnye Soed[inenya] (USSR) 1961, v. 3, no. 4, p. 585-593.

DESCRIPTORS: *Ethylenes, *Polymerization, Reaction kinetics, Titanium compounds, Chlorides, Aluminum, Ethyl radicals, Catalysts, Catalysis.

The kinetic equations are derived for various methods of investigating α -olefin polymerization on $TiCl_3$ -Al (C_2H_5)₃ catalysts. On the basis of the equations a (Chemistry--Organic, TT, v. 8, no. 6) (over)

62-14819

I. Tsvetkova, V. I.
II. Pirogov, O. N.
III. Title; Kinetic ...

Office of Technical Services

Investigation of the Degradation of Condensation Resins. Thermo-Oxidative Degradation of Hardened Epoxy Resins, by M. B. Neiman.

RUSSIAN, per, Vysokomolekulyarnye Soedinyeniya, Vol III, 1961, pp 602-606.

NLL RTS 2431
(loan copy)

Jul 64

Investigation of the Degradation of Polycondensation Resins. Part 3. Thermooxidative Degradation of Hardened Epoxy Resins, by M. B. Neiman.
RUSSIAN, par, Vysokomolekul Soedin, Vol 3,
No 4, 1961, pp 602-606.
ATS-4896

Sci
Dec 68

368,764

<p>Sharokova, N. I., Russkova, E. F. and others. STUDIES OF POLYCARBONATES. [III]. STUDIES OF 2,2-Bis(4-HYDROXYPHENYL)PROPANE POLYCARBON- ATES IN A HOMOGENEOUS MEDIUM AND THEIR PROPERTIES. [1961] 9p. Order from ATS \$12.50 ATS-60N52R</p> <p>Trans. of <u>Vysokomolekulyarnye Soedineniya</u> (USSR) 1961, v. 3, no. 4, p. 642-649.</p> <p>DESCRIPTORS: *Carbonates, Chemical properties, Propanes, Hydroxides, Phenyl radicals.</p> <p>(Chemistry--Organic, TT, v. 6, no. 7)</p>	<p>61-25218</p> <p>I. Sharokova, N. I. II. Russkova, E. F. III. Title: Studies of 2,2-Bis... IV. ATS-60N52R V. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS/RJ-3001</p> <p>100-100-100</p> <p>Office of Technical Services</p>
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Polyakova, A. M., Korshak, V. V., and
Tambovtseva, E. S.
 α -METHYLSTYRENES CONTAINING Sn, Pb and Ge.
Pt. 7 of the Polymerization of Ring-Substituted
 α -Methylstyrenes and Pressure. [1961] 4p.
Order from ATS \$4.64 ATS-92N53R

Trans. of Vysokomol Kulyarnye Soedineniya (USSR)
1961, v. 3, no. 3, p. 662-664.

DESCRIPTORS: *Styrenes, *Methyl radicals, Tin,
Lead, Germanium, Polymerization, Pressure.

(Chemistry--Organic, TT, v. 7, no. 3)

62-12080

- I. Polyakova, A. M.
- II. Korshak, V. V.
- III. Tambovtseva, E. S.
- IV. Title: Polymerization ...
- V. ATS-92N53R
- VI. Associated Technical Services, Inc.,
East Orange, N. J.

ATS-RJ-3093

Office of Technical Services

Degteva, T. G.

THERMAL DEGRADATION OF FLUORINATED
ELASTOMERS OF THE KEL-F AND PFP/VF TYPES
(Ternicheskii Raspad Ftorsoderzhashchikh Elasto-
merov Tipa Kel-F i PFP/VF) tr. by G. Klmer. Sep 61
(12p) 8refs RAE Library Trans. no. 967; AD-265 016.
Order from OTS, SLA, or ETC \$1.60 TT-63-24371

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 5, p. 671-678. (Abstract available)

DESCRIPTORS: *Elastomers, Pyrolysis, Heat resistant
plastics, Polymers, Structural properties, Heat of
activation, Reaction kinetics, Fluorides, Heat of
reaction, Ethylenes, Chlorides, Propenes, Polyvinyl
chloride.

The thermal degradation of Kel-F and PFP/VF elas-
tomers was investigated over the temperature range
(Materials--Elastomers, TT, v. 11, no. 9) (over)

TT-63-24371

- I. Degteva, T. G.
- II. RAE Trans-967
- III. AD-265 016
- IV. Royal Aircraft
Establishment
(Gt. Brit.)

Office of Technical Services

Korotkov, A. A. and Li, Tsung-Ch'ang.
EFFECTS OF PREPARATION CONDITIONS ON THE
SPECIFICITY FOR THE POLYMERIZATION OF
PROPYLENE FOR CATALYSTS BASED ON
 β -TICl₃ + Al(C₂H₅)₃. Pt. 1 of Effects of the Struc-
ture of Titanium Trichloride on the Stereospecificity
of Catalysts. [1961] 8p. 8 refs.
Order from RIS \$14.00

RIS G-314a

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 3, p. 686-690.

DESCRIPTORS: *Propenes, Polymerization, *Titanium
compounds, *Chlorides, Aluminum compounds, Ethyl
radicals, *Catalysts, Catalysis, Preparation, Crystal
structure, Stereochemistry, Polymers.

(Chemistry--Physical, TT, v. 7, no. 5)

62-12434

- I. Korotkov, A. A.
- II. Li, Tsung-Ch'ang
- III. Title: Effects of the
Structure ...
- IV. RIS G-314a
- V. Research Information
Service, New York

Office of Technical Services

Korotkov, A. A. and Li, Tsung-Ch'ang.
CHANGES IN THE STRUCTURE AND CATALYTIC
BEHAVIOR OF TITANIUM TRICHLORIDE AFTER
HEAT TREATMENT, Pt. 2 of Effects of the Structure
of Titanium Trichloride on the Stereospecificity of
Catalysts. [1961] 11p. 6 refs.
Order from RIS \$20.00

RIS G-314b

Trans. of Vysokomolekularnye Soedineniya (USSR)
1961, v. 3, no. 5, p. 691-698.

DESCRIPTORS: *Titanium compounds, *Chlorides,
*Catalysts, Catalysis, Heat treatment, Crystal
structure, Stereochemistry, X-ray diffraction analysis,
Electron microscopy, Chemical analysis.

(Chemistry--Physical), TT, v. 7, no. 5)

62-1243S

- I. Korotkov, A. A.
- II. Li, Tsung-Ch'ang
- III. Title: Effects ...
- IV. RIS G-314b
- V. Research Information
Service, New York

Office of Technical Services

<p>Rafikov, S. R., Zhubanov, B. A. and others. INVESTIGATIONS IN THE FIELD OF POLYMER SYNTHESIS I. SYNTHESIS OF POLYAMIDES BASED ON XYLYLENEDIAMINES. [1961] 8p. Order from ATS \$13.45 ATS-28NSR</p> <p>Trans. of <u>Vysokomolekulyarnye Soedineniya</u> (USSR) 1961, v. 3, no. 5, p. 699-705.</p> <p>DESCRIPTORS: *Amides, *Polymers, Synthesis, Xylenes, Amines, Chemical reactions.</p> <p>(Chemistry--Organic, TT, v. 7, no. 3)</p>	<p>62-12093</p> <p>I. Rafikov, S. R. II. Zhubanov, B. A. III. Title: <u>Synthesis ...</u> IV. ATS-28NSR V. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS - RI - 3069</p> <p>Office of Technical Services</p>
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Sokolova, T. A. and Rudkovskaya, G. A.
CYCLIC POLYMERIZATION. I. N-METHYLDIMETHYL
ACRYLAMIDE. [1961] 7 Jp. 23 refs.
Order from OTS or SLA \$1.10

62-13909

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
[1961] v. 3, p. 706-710.

DESCRIPTORS: *Polymerization, *Amides, Polymers,
Peroxides, *Molecular structure, Methyl radicals.

N-methyldimethacrylamide can be block polymerized
with peroxide initiators, yielding a soluble linear
polymer that contains rings in its chain. The cyclic
structure of polymethyldimethacrylamide was estab-
lished by synthesis of a similar polymer via deamina-
tion of polymethylmethacrylamide.

(Chemistry--Organic, TT, v. 7, no. 11)

62-13909

I. Sokolova, T. A.
II. Rudkovskaya, G. A.
III. Translations, New York

Office of Technical Services

<p>Neimark, I. E., Chuiko, A. A., and Slinyakova, I. B. LES SILICES OLEFINO-SUBSTITUÉES COMME FILLERS ACTIFS DES POLYMERES (Olefin-substituted Silicas as Active Fillers of Polymers). 12p. 15 refs. FR-2899 (text in French). Order from OTS or ETC \$1.85 62-26151 Trans. in French of <u>Vysokomolekulyarnye Soedineniya</u> (USSR) 1961, v. 3, no. 5, p. 711-715.</p> <p>DESCRIPTORS: *Silicides, Polymers, Additives.</p>	<p>62-26151 I. Neimark, I. E. II. Chuiko, A. A. III. Slinyakova, I. B. IV. FR-2899 V. Centre National de la Recherche Scientifique (France)</p>	
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Lyubetskii, S. G., Dolgoplosk, B. A., and
Erusalimskii, B. L.
KINETICS OF ETHYLENE POLYMERIZATION IN
BENZENE AND HEPTANE SOLUTION. Pt. I of the
Polymerization of Ethylene Under the Influence of Free
Radicals. [1962] 7p.
Order from ATS \$9.23

ATS-67N53R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 5, p. 734-739.

DESCRIPTORS: *Ethylenes, *Polymerization,
*Reaction kinetics, *Benzene, Free radicals,
Solutions, Heptanes.

(Chemistry & Organic, TT, v. 7, no. 11)

62-12784

I. Lyubetskii, S. G.
II. Dolgoplosk, B. A.
III. Erusalimskii, B. L.
IV. Title: Polymerization of...
V. ATS-67N53R
VI. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS RT-3826

Office of Technical Services

Eizner, Yu. E.
THE RELATIONSHIP BETWEEN CONCENTRATION
AND THE DIMENSIONS OF MACROMOLECULES IN
SOLUTION. [1961] 11p.
Order from ATS \$17.00

ATS-20N54R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 5, p. 748-757.

DESCRIPTORS: *Molecules, *Solutions, Density

(Chemistry--Physical, IT, v. 7, no. 5)

62-12083

I. Eizner, Yu. E.
II. ATS-20N54R
III. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS-RJ-3080

Office of Technical Services

Studies on the Electroconductivity of Polymers.
IV. Effect of Dipole Polarization (Polystyrene,
Poly-p-Chlorostyrene, ZIF Styrene-Acrylonitrile
Copolymer, by B. I. Sazhin, M. P. Eidel'nant,
14 pp.

RUSSIAN, per, Vysokomolekulyarnye Soedineniya,
Vol. III, No 5, 1961, pp 762-767. 9206074.

AEC/SOL Tr 461

SOL - Chem

May 63

229,908

Polymerization of Chloroprene by
Metal-Organic Compounds, by
B. L. Erusalimskii.
RUSSIAN, per, Vysokomolekulyarnye
Sosdineniya, Vol 3, 1961, p 798.
NTC 72-11262

May 72

Yakovleva, M. K., Sheinker, A. P., and Abkin, A. D.
STUDY OF THE MECHANISM OF RADIATIVE POLYMERIZATION. II. MECHANISM OF CARBONIUM POLYMERIZATION OF STYRENE AND METHYL METHACRYLATE UNDER THE ACTION OF GAMMA RAYS. [1961] 6p.

Order from ATS \$9.10

ATS-90N54R

Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1961, v. 3, no. 6, p. [828]-832.

DESCRIPTORS: *Polymerization, *Gamma rays, Radiation effects, *Styrenes, Carbon, Ions, Polymers, *Acrylic resins.

62-12088

- I. Yakovleva, M. K.
- II. Sheinker, A. P.
- III. Abkin, A. D.
- IV. Title: Mechanism ...
- V. ATS-90N54R
- VI. Associated Technical Services, Inc.,
East Orange, N. J.

(Chemistry--Organic, TT, v. 7, no. 4)

Office of Technical Services